

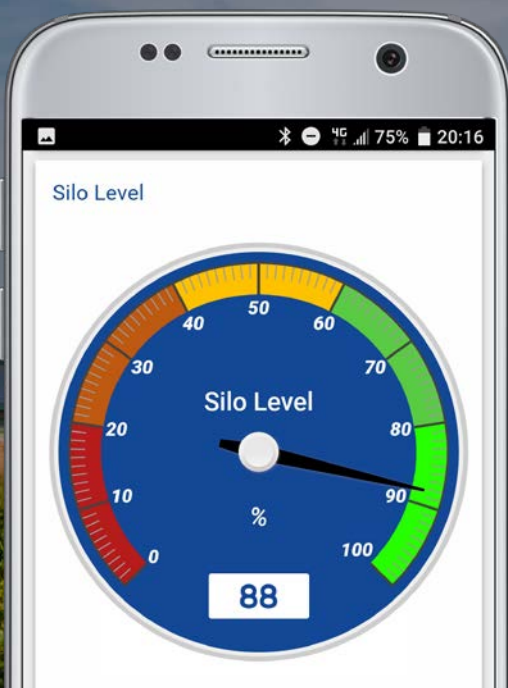
EDGE SILO MONITOR

FEATURES & BENEFITS

- Measures Silos up to 10 meters tall with +/- 5% accuracy
- Continuous level measurement
- Battery powered with mains connected option
- Dust Proofing option
- Sends silo levels in % to cloud host
- Battery, temperature and humidity status available
- Level logging can be varied between 1 minute to every 48 hours
- Retrofittable to the top of any silo
- Simple to use and easy to install
- Usage profiling in graphical format highlights level anomalies (bridging)
- Affordable and reliable
- Onboard logging for offline situations
- Programmable Alarms
- Reports local temperature, GSM RSSI, and battery level
- External antenna option for underground locations
- Remote configurability
- Easy to install and commission

APPLICATIONS

- Suitable for monitoring silos with feed or aggregates
- Remote monitoring and level alerting for solids
- Global Cellular options available with certifications
- Can work with silo bags and can be mounted outside of container
- Non-Contact measurement of most solids



SPECIFICATION

Characteristic	Firmwave Edge Silo Monitor
Dimensions/Weight	Max Diameter 1016mm x 2540 mm Length
Housing Material	Moulded plastic, Polyethylene
Operating Temperature	-20°C to 45°C
Storage Temperature	0°C to 30°C
Humidity	10 – 100% RH
Environmental Protection	IP67 equivalent
GSM module options	2G GSM/GPRS 850/900/1800/1900MHz -Quad band 3G UMTS/HSDPA 900/2100MHz or 850/1900MHz 3G UMTS/HSPA+/WCDMA 900/2100MHz or 850/1900MHz or 800/850/900/1900/2100MHz 4G & NB-IoT enabled options with world-wide certification
Laser Sensor	Laser Sensor used to determine height of solids in a container. Laser Class II, Electrical levels DC 2.2 – 3.3V
Dust Protection	Dust Protection option available on request but not necessary on all silos
Accuracy/resolution	Laser accuracy +/- 1 mm. Overall stated accuracy in silo is +/-5%
Seal Types	EPDM type seal with silicon options
Data Rates	Data Transmission logging and transmission rates configurable from 1 min to 48 hours
Power requirements	Battery pack with standard rechargeable 3.7v DC Lithium Ion
Battery life	Various depending on battery selected, sampling and connection frequency

CONFIGURATION

External connection	IP68 Cable gland (side or bottom) for Ext. battery and air connection
Server radio communications	2G, 3G, 4G, NB-IoT module options for specific geography or global coverage
LoRa and Sigfox options (Q4, 2018)	Internal with option for antenna coupler with SMA connector to allow connection of an external GSM antenna
Antenna	Internal with option for antenna coupler with SMA connector to allow connection of an external GSM antenna
Fixing/Mounting	Screw mounts (4), Magnetic options, roof mounting and various options depending on situation



4G CAT 1
3G
2G
NB-IOT
LTE CATM



GPS
GLONASS
GALILEO
BEIDOU



BLE4.2
BEACONS
ANDROID
IOS